

LISTING OF CLAIMS:

This listing of claims replaces without prejudice all prior versions and listings of claims in the application:

1. (Currently Amended) A method of estimating ~~currently available~~ additional uplink transmit power available for a subscriber station having a radio that includes a power amplifier including foldback circuitry that monitors a current in said power amplifier indicative of actual uplink transmit power provided by said power amplifier to an antenna, said foldback circuitry operating to limit said monitored current to prevent said power amplifier from being driven over specification or being driven outside regulatory limits, said method comprising:

maintaining at [[a]] said base station a stored value for allowable maximum uplink transmit power for said subscriber station;

tracking at said subscriber station incidents of foldback, an incident of foldback occurring whenever current uplink transmit power is limited by said foldback circuitry operating to prevent said power amplifier from at least one of (i) being driven over specification, and (ii) being driven outside regulatory limits said foldback circuitry operates to limit said monitored current to prevent said power amplifier from being driven over specification or being driven outside

regulatory limits;

transmitting a foldback event message from said subscriber station to said base station whenever incidents of foldback tracked at said subscriber station reach a predetermined threshold;

decreasing said stored value when said base station receives a foldback event message from said subscriber station;

increasing said stored value when a predetermined interval of time has lapsed without said base station receiving a further foldback event message from said subscriber station; and

subtracting uplink transmit power reported by said subscriber station from said stored value when ~~an~~ to estimate ~~of the~~ additional uplink transmit power currently available to said subscriber station, when an estimate is required.

2. (Previously Presented) The method of claim 1, wherein said base station increases said stored value in increments of substantially 1 dBm.

3. (Previously Presented) The method of claim 1, wherein said base station decreases said stored value in increments of substantially 1 dBm.

4. (Previously Presented) The method of claim 1, wherein said predetermined interval of time is substantially 30 minutes.

5. (Previously Presented) The method of claim 1, wherein said predetermined threshold is reached when a preselected number of consecutive frames have been subject to foldback.

6. (Previously Presented) The method of claim 1, wherein said predetermined threshold is reached when said subscriber station has a foldback duty cycle of more than a predetermined amount over a predetermined period of time.

7. (Previously Presented) The method of claim 1 wherein said foldback event message includes an indication of the intensity of foldback imposed at said subscriber station and said base station decreases said stored value by an amount proportional to the intensity of foldback.

8. (Currently Amended) A system for transmitting data comprising:

a plurality of subscriber stations each having a radio that includes a power amplifier including foldback circuitry that monitors a current in said power amplifier

indicative of actual uplink transmit power provided by said power amplifier to an antenna, said foldback circuitry operating to limit said monitored current to prevent said power amplifier from being driven over specification or being driven outside regulatory limits, and each operable to track incidents of foldback and to transmit a foldback event message whenever incidents of foldback tracked reach a predetermined threshold, an incident of foldback occurring whenever ~~current uplink transmit power is limited by said foldback circuitry operating to prevent said power amplifier from at least one of (i) being driven over specification, and (ii) being driven outside regulatory limits~~ said foldback circuitry operates to limit said monitored current to prevent said power amplifier from being driven over specification or being driven outside regulatory limits; and

a base station operable to receive foldback event messages and to maintain a stored value for allowable maximum uplink transmit power for each said subscriber station, said base station decreasing said stored value for a subscriber station when the base station receives a foldback event message from said subscriber station and increasing said stored value for said subscriber station when a predetermined interval of time has lapsed without said base station receiving a further foldback event message from said subscriber station,

said base station being configured to estimate additional uplink transmit power currently available to said subscriber station by subtracting current transmit power reported by said subscriber station from said stored value for said subscriber station.

9. (Previously Presented) The system of claim 8, wherein said base station adjusts stored value in increments of substantially 1 dBm.

10. (Previously Presented) The system of claim 8, wherein said base station increases said stored value for said subscriber station after a predetermined interval of time has lapsed without receiving a further foldback event message from said subscriber station.

11. (Previously Presented) The system of claim 10, wherein said predetermined period of time is substantially 30 minutes.

12. (Previously Presented) The system of claim 8, wherein said predetermined threshold is reached when a preselected number of consecutive frames have been subject to foldback.

13. (Previously Presented) The system of claim 8, wherein said predetermined threshold is reached when said subscriber station has a foldback duty cycle of more than a predetermined amount over a predetermined period of time.

Claim 14. (Cancelled)

15. (Currently Amended) A system for transmitting data comprising:

at least one subscriber station operable to transmit data at a plurality of different data rates, said at least one subscriber station further having a radio that includes a power amplifier including foldback circuitry that monitors a current in said power amplifier indicative of actual uplink transmit power provided by said power amplifier to an antenna, said foldback circuitry operating to limit said monitored current to prevent said power amplifier from being driven over specification or being driven outside regulatory limits, and operable to track incidents of foldback and to transmit a foldback event message whenever incidents of foldback tracked in said at least one subscriber station reach a predetermined threshold, an incident of foldback occurring ~~whenever current uplink transmit power is limited by said foldback circuitry operating to prevent said power amplifier from at least one of (i) being driven over~~

~~specification, and (ii) being driven outside regulatory~~
~~limits~~ said foldback circuitry operates to limit said
monitored current to prevent said power amplifier from being
driven over specification or being driven outside regulatory
limits; and

a base station operable, upon receiving said
foldback event message, to instruct said at least one
subscriber station to reduce the its data rate for said at
~~least one subscriber station.~~

16. (Currently Amended) A subscriber station
having a radio including a power amplifier including foldback
circuitry that monitors a current in said power amplifier
indicative of actual uplink transmit power provided by said
power amplifier to an antenna, said foldback circuitry
operating to limit said monitored current to prevent said
power amplifier from being driven over specification or being
driven outside regulatory limits, and operable to track
incidents of foldback and to transmit a foldback event
message to a base station whenever tracked incidents of
foldback reach a predetermined threshold, an incident of
foldback occurring whenever ~~current uplink transmit power is~~
~~limited by said foldback circuitry operating to prevent said~~
~~power amplifier from at least one of (i) being driven over~~
~~specification, and (ii) being driven outside regulatory~~

limits said foldback circuitry operates to limit said
monitored current to prevent said power amplifier from being
driven over specification or being driven outside regulatory
limits.

17. (Previously Presented) The subscriber station of claim 16, wherein said predetermined threshold is reached when said radio experiences foldback over a predefined number of consecutive frames.

18. (Previously Presented) The subscriber station of claim 16, wherein said predetermined threshold is reached when said subscriber station has a foldback duty cycle of more than a predetermined amount.

19. (Currently Amended) A subscriber station having a radio with a power amplifier including foldback circuitry that monitors a current in said power amplifier
indicative of actual uplink transmit power provided by said
power amplifier to an antenna, said foldback circuitry
operating to limit said monitored current to prevent said
power amplifier from being driven over specification or being
driven outside regulatory limits, said subscriber station operable to transmit data at a plurality of different data rates, and said subscriber station further operable to track

incidents of foldback and to transmit data at a lower data rate from said plurality of different data rates whenever tracked incidents of foldback reach a predetermined threshold, an incident of foldback occurring whenever ~~current uplink transmit power is limited by said foldback circuitry operating to prevent said power amplifier from at least one of (i) being driven over specification, and (ii) being driven outside regulatory limits~~ said foldback circuitry operates to limit said monitored current to prevent said power amplifier from being driven over specification or being driven outside regulatory limits.

20. (Currently Amended) A base station operable to receive messages from a remote subscriber station that has a radio including a power amplifier including foldback circuitry that monitors a current in said power amplifier indicative of actual uplink transmit power provided by said power amplifier to an antenna, said foldback circuitry operating to limit said monitored current to prevent said power amplifier from being driven over specification or being driven outside regulatory limits, and is operable to track incidents of foldback and further operable to adjust an estimate of currently available additional uplink transmit power maintained for said subscriber station upon receiving a message indicating that tracked incidents of foldback have

reached a predetermined threshold, an incident of foldback occurring whenever ~~current uplink transmit power is limited by said foldback circuitry operating to prevent said power amplifier from at least one of (i) being driven over specification, and (ii) being driven outside regulatory limits~~ said foldback circuitry operates to limit said monitored current to prevent said power amplifier from being driven over specification or being driven outside regulatory limits.

21. (Previously Presented) The base station of claim 20, wherein said base station adjusts the estimate of maximum available uplink transmit power in increments of substantially 1 dB.

22. (Previously Presented) The base station of claim 21, wherein said base station increases the estimate of currently available additional uplink transmit power of said subscriber station after a predetermined period of time has lapsed since receiving said message.

23. (Previously Presented) The base station of claim 22, wherein said predetermined period of time is substantially 30 minutes.

24. (Previously Presented) The base station of claim 20, wherein said base station adjusts said currently available additional uplink transmit power of said subscriber station in accordance with the method described in claim 1.

25. (Currently Amended) A base station operable to reduce the data rate of a subscriber station that has a radio that includes a power amplifier including foldback circuitry that monitors a current in said power amplifier indicative of actual uplink transmit power provided by said power amplifier to an antenna, said foldback circuitry operating to limit said monitored current to prevent said power amplifier from being driven over specification or being driven outside regulatory limits, and is operable to track incidents of foldback, upon said base station receiving a message from said subscriber station indicating that tracked incidents of foldback have reached a predetermined threshold, an incident of foldback occurring ~~whenever current uplink transmit power is limited by said foldback circuitry operating to prevent said power amplifier from at least one of (i) being driven over specification, and (ii) being driven outside regulatory limits~~ said foldback circuitry operates to limit said monitored current to prevent said power amplifier from being driven over specification or being driven outside regulatory limits.

26. (Previously Presented) The method of claim 1, wherein the stored value for allowable maximum uplink transmit power is the sum of the lower of a maximum rated power output of the subscriber station and a maximum rated power output set by regulation and a stored uplink transmit power margin having a predetermined range of possible values, the stored value for allowable maximum uplink transmit power increased or decreased by increasing or decreasing the uplink transmit power margin within the predetermined range.

27. (Previously Presented) The method of claim 26, wherein the method commences when the base station powers up and whenever another subscriber station becomes serviced by the base station by initializing the stored uplink transmit power margin to a predetermined maximum value.

28. (Previously Presented) The method of claim 26, wherein the lower of a maximum rated power output of the subscriber station and a maximum rated power output set by regulation is substantially 25 dBm, and wherein the range of possible values of the uplink transmit power margin is substantially -3 dBm to substantially 6 dBm.